sensors; and

input couplers and output couplers, said input couplers and said output couplers being connected to respective ones of said sensors, each of said input couplers within any one of said sensor groups being connected to a different one of said distribution fiber lines;

wherein each of said return fiber lines is connected to all output couplers within respective ones of said sensor groups; and

wherein coupling ratios of said input couplers and said output couplers are chosen to reduce differences in the returned optical signal power levels, said input couplers in a first sensor group having a first input coupling ratio and said input couplers in a second sensor group having a second input coupling ratio different from said first input coupling ratio, each output coupler connected to a respective return fiber line from a sensor group having a coupling ratio that differs from the coupling ratio of the other output couplers connected to the respective return fiber line, said input coupling ratios and said output coupling ratios selected in accordance with respective locations of said input couplers on said distribution fiber lines and respective locations of said output couplers on said return fiber lines.

REMARKS

Claims 1-12 are pending in the application. Claim 4 has been amended in response to the Examiner's concerns regarding proper antecedent basis.

Rejection of Claims 1-3 and 9-12 under 35 U.S.C. 112, first paragraph

The Examiner has rejected Claims 1-3 and 9-12 under 35 U.S.C. 112, first paragraph. The Examiner maintains that the specification, while being enabling for a 6 × 16 sensor array, does not reasonably provide enablement for an m × n sensor. In particular, the Examiner is concerned that the specification fails to teach the coupling ratios for m × n configurations.

Applicants respectfully disagree with the Examiner's contention that the specification does not enable an m × n sensor array. The variables, m and n, correspond to the number of distribution lines, and the number of return fiber lines, respectively. In the claimed array, there are n sensor groups, each containing m sensors. To construct an m × n sensor array, m